



**STAFF REPORT
ACTION REQUIRED**

Provision of Proprietary Software Licences and Maintenance from Innovyze Inc. for Hydraulic Modelling and Asset Management

Date:	September 18, 2015
To:	Public Works and Infrastructure Committee
From:	Chief Information Officer, Information & Technology; General Manager, Toronto Water; and Director, Purchasing & Materials Management
Wards:	All
Reference Number:	P:\2015\Cluster B\TW\PWI15022

SUMMARY

This report seeks authority to purchase additional software licences along with associated technical support and maintenance and upgrades of existing software licences from the effective date of the agreement to December 31, 2015. The estimated value is not to exceed \$520,388 USD net of HST (\$529,546 USD net of HST recoveries) or \$686,183 CAD net of HST (\$698,260 CAD net of HST).

Innovyze Inc. (Innovyze) is the sole provider of the InfoWorks, InfoWater and InfoNet software used by the City for sewer hydraulic computer modelling, water distribution network computer modelling and sewer asset management, respectively.

City Council approval is required in accordance with Toronto Municipal Code, Chapter 71 Financial Control, Section 71-11A, where the total amount of \$520,388 USD net of HST (\$529,546 USD net of HST recoveries) or \$686,183 CAD net of HST (\$698,260 CAD net of HST) exceeds staff authority.

RECOMMENDATIONS

The General Manager, Toronto Water, Chief Information Officer and Director, Purchasing & Materials Management recommend that:

1. City Council authorize the General Manager, Toronto Water and Chief Information Officer to negotiate and execute a contract with Innovyze for the provision of additional software licences of InfoWorks, InfoWater and InfoNet with associated technical support and maintenance and upgrades of InfoWorks Collection System (CS) software licences owned by the City from the effective date of the agreement to December 31, 2015 in the amount of \$520,388 USD net of HST (\$529,546 USD net of HST recoveries) or \$686,183 CAD net of HST (\$698,260 CAD net of HST), on terms and conditions satisfactory to the Chief Information Officer, Information & Technology, and the General Manager, Toronto Water, and in a form satisfactory to the City Solicitor.

Financial Impact

This report identifies a total value of \$520,388 USD net of HST (\$529,546 USD net of HST recoveries) or \$686,183 CAD net of HST (\$698,260 CAD net of HST), including:

- \$506,025 USD net of HST (\$514,931 USD net of HST recoveries) or \$667,245 CAD net of HST (\$678,988 CAD net of HST Recoveries) for the provision of additional software licences and upgrades to InfoWorks Collection System (CS) licences owned by the City; and
- \$14,363 USD net of HST (or \$14,615 USD net of HST recoveries) or \$18,939 CAD net of HST (\$19,271 CAD net of HST) for associated technical support and maintenance of additional software licences only from the date of purchase to the end of 2015.

Funding in the amounts of \$317,700 USD and \$202,688 USD net of HST (\$323,292 USD and \$206,254 USD net of HST recoveries) or \$418,919 CAD and \$267,264 net of HST (\$426,293 CAD and \$271,967 CAD net of HST recoveries) are included in Toronto Water's Approved 2015 Capital and Operating Budgets, respectively. Table 1 below provides a breakdown of funding sources.

TABLE 1
Innovyze Inc. Proprietary Software Licences and Maintenance
Estimated Funding Details – Net of HST

Cost Centre / WBS Element and GL Account	Description	Estimated Costs (USD)
CWW452-04 CWW421-05 CPW537-04	Additional software licences and upgrades to software licences owned by the City	\$317,700
TW3020 / GL3420 TW3030 / GL3420 TW3025 / GL3420	2015 Technical support and maintenance for additional software licences only from the date of purchase to the end of 2015	\$8,400
TW1030 / GL3420	Additional software licences, including 2015 technical support and maintenance from the date of purchase to the end of 2015, to be used exclusively for infrastructure planning in conjunction with Metrolinx transit projects.	\$194,288
	Total	\$520,388

1\$US = 1.3186 \$CAD – Bank of Canada Noon Rate as of September 17, 2015

The Deputy City Manager & Chief Financial Officer has reviewed this report and agrees with the financial impact information.

DECISION HISTORY

On July 16, 2013 City Council adopted and recommended to negotiate and execute a contract with Innovyze, subject to approval of Toronto Water's annual Operating Budget in each calendar year, for the provision of maintenance and support services for InfoWorks and InfoNet software licenses from January 1, 2013 to December 31, 2015 in the amount of \$161,294 USD net of HST (\$164,133 USD net of HST recoveries) or \$212,682 CAD net of HST (\$216,426 net of HST recoveries).

The following is the link to City Council Decision Document:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2013.GM23.15>

ISSUE BACKGROUND

Innovyze is the sole and exclusive developer, maintenance provider and distributor of the InfoWorks, InfoWater and InfoNet family of off-the-shelf software products. Toronto Water uses these software products due to their abilities to handle large infrastructure networks, their full compatibility with Geographic Information Systems (GIS) already used by the City, and because they are widely used by North American municipalities and engineering consultant firms.

Toronto Water has been using this software for sewer and water distribution network computer simulation modelling, as well as infrastructure asset management since 2006. Innovyze has also been providing support and maintenance services for these software products since 2007.

Toronto Water currently owns the following Innovyze licenses:

Software Licence	Existing Number of Licences
InfoWorks Collection System (CS)	6
InfoWorks Collection System (CS) Viewer	5
InfoWorks Integrated Catchment Model (ICM)	1
InfoNet	10
InfoNet Viewer	3
InfoNet Exchange	1
InfoWater	5
InfoWater Uni-Directional Flow (UDF)	2

Toronto Water requires the following additional licenses:

Software Licence	Required Additional Number of Licences
InfoWorks Collection System (CS) (upgrade to Infoworks Integrated Catchment Model – Sewer Edition (ICM SE))	6
InfoWorks Integrated Catchment Model – Sewer Edition (ICM SE)	4
InfoNet	8
InfoNet Viewer	1
InfoWater	4

InfoWorks software was selected as a result of a 2005 "Sewer System Modelling Software Needs Study" conducted as part of the development of a basement flooding work plan. Since 2006, Toronto Water has been using InfoWorks to support an extensive number of projects, programs and activities including the Basement Flooding Protection Program, annual combined sewer overflow (CSO) reporting mandated by the Federal Wastewater Systems Effluent Regulations, identification of Sewer Capacity and Upgrades in conjunction with Metrolinx transit projects, etc. The number of staff who regularly use InfoWorks outnumbers the number of software licences available. As a result, software shortages that affect staff's ability to utilize these software occur frequently.

In addition to the issues noted above related to software shortages, Innovyze retired the InfoWorks version used by Toronto Water (Collection Systems) in 2014. Technical support for the retired version will also cease by the end of 2015. Therefore, the need exists for Toronto Water to upgrade its current licences to the supported product (Integrated Catchment Model – Sewer Edition (ICM SE)), and to purchase additional licenses of the supported product.

As part of the "Sewer System Modelling Software Needs Study" mentioned above, Toronto Water also selected InfoNet as the best asset data management tool to assist in the preparation of annual capital improvement programs for water and sewer infrastructure maintenance, replacement and rehabilitation. Toronto Water uses InfoNet to meet many short and long term infrastructure asset management needs, which include sewer hydraulic model development, sewer CCTV data management, sewer rehabilitation planning, operational support, etc. InfoNet is fully compatible and integrated with Toronto Water digital applications such as GIS, Toronto Water Asset Geodatabase (TWAG), and the computerized maintenance management system (CMMS), SCADA, etc.

In 2005, Toronto Water developed a plan to create comprehensive hydraulic water distribution models of the City's watermain network in order to improve drinking water service levels across the City, to prioritize replacement of aging watermain infrastructure, and to optimize watermain cleaning and flushing procedures. As part of that plan, Toronto Water identified InfoWater as the best software available in the market at the time that met its needs. Toronto Water has been using InfoWater to analyze and optimize the City's water distribution system, assist in decision making related to capacity improvement and long term planning, and support operations and field staff in planning for local system changes.

Some of the additional software licences will be used exclusively for sewer and watermain infrastructure planning in conjunction with Metrolinx's transit projects. The cost of additional software licences, and technical support and maintenance from the date of purchase to the end of 2015 required for this purpose is in the amount of \$194,288 USD net of HST (\$197,707 USD net of HST recoveries) or \$256,188 CAD net of HST (\$260,696 net of HST recoveries). This cost is already included in the funding amount of \$202,688 USD net of HST (\$267,264 CAD net of HST recoveries) or allocated in

Toronto Water's Approved 2015 Operating Budget, and will be fully recovered from Metrolinx.

COMMENTS

The Water Infrastructure Management section of Toronto Water uses InfoWorks, InfoWater and InfoNet software extensively to support its responsibilities of sewer and water infrastructure asset management, planning and improvement. The need to increase licence availability has been identified based on the current usage of these software, increasing utilization of licences by staff, and commitments to current and future projects /studies.

Innovyze is the sole and exclusive developer, maintenance provider and distributor of InfoWorks, InfoWater and InfoNet software. Water Infrastructure Management has been using these software products since 2006, and as such they play a major role in the section's established work practices and procedures. To incorporate other software into the section's work will introduce operational challenges related to maintaining multiple products to perform similar functions, and also trigger additional efforts to train staff and reconfigure the City's asset database to accommodate other software products.

Toronto Water also has on-going and committed projects, such as Basement Flooding Environmental Assessment studies and implementation projects, where the use of InfoWorks is stipulated in the terms of the City's contracts with its consultants. For the new Basement Flooding program management contract, the City is also contractually obligated to provide an exclusive InfoWorks licence for the consultant's sole use.

Technical support and maintenance by Innovyze for the currently-owned licences of Infoworks Collection System (CS) will end by the end of 2015. As a result, the existing (6) InfoWorks licences owned by Toronto Water will need to be upgraded to the new version known as InfoWorks Integrated Catchment Model – Sewer Edition (ICM SE).

Technical support and maintenance for the Innovyze software licences for 2016 and beyond is not addressed by this report. For 2016 and beyond, the City will need to negotiate contracts for the technical support and maintenance needs for all City software. These contracts will need to include all existing, new, and upgraded Innovyze software licences owned by the City and will be part of a further report from IT later in 2015.

The Fair Wage Office has reported that Innovyze has reviewed and understood the Fair Wage Policy and Labour Trades requirements and has agreed to comply fully.

CONTACT

Graham Harding, P.Eng.
Director, Water Infrastructure Management
Toronto Water
Tel: (416) 397-4631
E-mail: ghardin2@toronto.ca

Jacquie Breen
Manager, Corporate Purchasing
Policy & Quality Assurance
Purchasing & Materials Management
Tel: (416) 392-0387
Email: jbreen@toronto.ca

SIGNATURE

Rob Meikle
Chief Information Officer
Information & Technology

Lou Di Gironimo
General Manager
Toronto Water

Michael Pacholok
Director
Purchasing & Materials Management